## What is claimed is:

- An electrochemical sensor, comprising:
- a substrate having a surface, said surface having at least one notch for holding gas;
- an electrolytic material extending over said surface and spaced apart

  from said surface and said notch for providing an electrical connection; and
  a film of conductive material placed between and in contact with both
  said surface and said electrolytic material for defining a passage for receiving
  gas.
  - 2. The electrochemical sensor according to claim 1, wherein said electrolytic material is not in contact with said at least one notch.
  - The electrochemical sensor according to claim 1, wherein a second film of conductive material is deposited on at least one area of said at least one notch.
  - The electrochemical sensor according to claim 1, wherein said substrate is an electrically insulating material.
  - The electrochemical sensor according to claim 1, wherein said substrate is glass.
  - The electrochemical sensor according to claim 1, wherein said film is a metallic material.
  - The electrochemical sensor according to claim 1, wherein said electrolytic material is a polymer.
  - 8. The electrochemical sensor according to claim 1, wherein said electrolytic material is in a solid state.

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- The electrochemical sensor according to claim 1, wherein said at least one notch is etched.
- The electrochemical sensor according to claim 1, wherein said electrolytic material is Nafion.
- 11. The electrochemical sensor according to claim 3, wherein a second electrolytic material is placed in contact with said second film.
- 12. The electrochemical sensor according to claim 11, wherein said second electrolytic material is spin coated on said second film.
- 13. An electrochemical sensor, comprising:

a substrate having a surface, said surface having at least one notch for holding gas;

a first electrolytic material extending over said surface and spaced apart from said surface and said notch for providing an electrical connection;

a first film of conductive material placed between and in contact with both said surface and said first electrolytic material for defining a passage for receiving gas; and

a second film of conductive material deposited on at least one area of said notch.

- 14. The electrochemical sensor according to claim 13, wherein a second electrolytic material is placed in contact with said second film.
- The electrochemical sensor according to claim 13, wherein said at least one notch is etched.
- 16. An electrochemical sensor, comprising:

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a substrate having a surface, said surface having at least one notch for holding gas;

a first electrolytic material extending over said surface and spaced apart from said surface and said notch for providing an electrical connection;

a first film of conductive material placed between and in contact with both said surface and said first electrolytic material for defining a passage for receiving gas;

a second film of conductive material deposited on at least one area of said notch: and

a second electrolytic material placed in contact with said second film.

17. The electrochemical sensor according to claim 16, wherein said second electrolytic material is spin coated on said second film.